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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/507,119	09/10/2004	George Kammler	016906-0322	4162
22428 7590 04/29/2010 FOLEY AND LARDNER LLP SUITE 500 3000 K STREET NW WASHINGTON, DC 20007				
EXAMINER				
CIRIC, LJILJANA V				
ART UNIT		PAPER NUMBER		
3744				
MAIL DATE		DELIVERY MODE		
04/29/2010		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/507,119

**Applicant(s)**

KAMMLER, GEORGE

**Examiner**

Ljiljana (Lil) V. Ciric

**Art Unit**

3744

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 1/11/2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 23, 25, 26, 28-35 and 38-42 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 23, 25, 26, 28-35 and 38-42 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 September 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Response to Amendment***

1. This Office action is in response to the reply filed on January 11, 2010.
2. Claims 23, 25, 26, 28 through 35, and 38 through 42 remain in the application, all as amended, either directly or indirectly.

### ***Response to Arguments***

3. Applicant's arguments filed on January 11, 2010 have been fully considered but they are not persuasive.

Applicant's arguments that WO '230 does not two ring-shaped elements protruding towards the other of the first and second tube parts but merely discloses grooves 16 and 18 formed as indented grooves 16 and 18 into the wall of the outer tube 4" and that "indented grooves do not have protruding ring-shaped elements" are not found to be persuasive by the examiner because, for example, the mere existence of an indented circumferential groove in the wall of a tube inherently results in a ring-shaped portion of the tube wall to each side of the indented circumferential groove which protrudes relative to the indented groove. Note that the limitation "two continuous ring-shaped elements protruding radially", as broadly interpreted as required, is met by the existence of a ring-shaped (i.e., circular in cross-section) albeit flat portion or band of tube disposed on each side of the indented groove as disclosed by Figure 1 of WO '230. The reference thus meets the claims.

In response to applicant's arguments that WO '230 fails to disclose that the ring-shaped elements serve as a support that acts radially for the first and second tube parts 8 or 10 and 4, the examiner counters that WO '230 specifically discloses that "end faces 28 and 30 of the tube 4 bear against shoulders 32 and 34 at the ends of the rebates" of tube parts 8 and 10, respectively (see page 3 of WO '230). As such, the ring-shaped end faces 28 and 30 also serve as axial bearings as recited in claim 38 of the instant application, again contrary to applicant's arguments.

Furthermore, in response to applicant's argument that the WO '230 reference fails to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., that the indented grooves 16 and 18 substantially seal without the use of the sealing member, and that the O-rings are introduced into the grooves as a pasty or gel medium) are not recited in the rejected claims (i.e., in rejected claims 26 and 31, respectively). Claim 26 as written does not remove the sealing element and its function which are recited in claim 23 from which claim 26 depends, whereas claim 31 merely recites that "the at least one sealing element *can* be introduced into the chamber as a pasty or gel medium". Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

#### ***Drawings***

4. The previously cited objection to the drawings filed on September 10, 2004 has been obviated via applicant's cancellation of claims 27 through 36. The drawings filed on September 10, 2004 are hereby approved.

#### ***Specification***

5. Receipt and entry of the amended abstract is hereby acknowledged.

#### ***Claim Rejections - 35 USC § 112***

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 32 and 33 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

With regard to claim 32 as amended, it is still not clear whether or not the limitation "a substantially sealed spatial region" as recited in line 2 of the claim is intended to refer back to the limitation "a spatial region" as recited in line 12 of claim 23 from which claim 32 depends or whether it is

intended to recite a second and distinct spatial region, thus rendering indefinite the metes and bounds of protection sought thereby. It is recommended that if the aforementioned limitations are intended to refer to different regions, that the limitation in claim 32 be recited as “a second, substantially sealed, spatial region” or as “another, substantially sealed, spatial region”, for example.

***Claim Rejections - 35 USC § 102***

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. As best can be understood in view of the indefiniteness of claims 32 and 33, claims 23, 25, 26, 28 through 35, and 38 through 42 are rejected under 35 U.S.C. 102(b) as being anticipated by Heat Transfer PTY LTD (WO 89/07230).

Heat Transfer PTY LTD (WO 89/07230) discloses a heat exchanger essentially as claimed and having the same general configuration as the heat exchanger of the instant application, including, for example: first and second terminating elements 12 and 14; at least one tube 6; a first tube part 8 or 10 and a second tube part 4, wherein the first and second tube parts run radially over each other at least over a partial region of their axial extent and at least one of the first and second tube parts comprises two continuous ring-shaped elements (i.e., end face portion 28 or 30 and that portion of the tube part 4 disposed immediately on the other side of groove 16 or 18, respectively) protruding radially towards the other as shown in Figure 1 and forming a “chamber” or groove 16 or 18 therebetween in which at least one sealing element 20 or 22 is disposed. Note that, for example, groove 16 or 18 is recessed relative to the corresponding end face “ring” 28 or 30, respectively, while each end face “ring” 28 or 30 protrudes relative to grooves 16 or 18.

The reference thus reads on the claims.

***Conclusion***

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ljiljana (Lil) V. Ciric whose telephone number is 571-272-4909. The examiner works a flexible work schedule but can normally be reached on most days during the work week between the hours of 10:30 a.m. and 6:30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cheryl J. Tyler can be reached on 571-272-4834. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system.

Status information for published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

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For more information about the PAIR system, see <http://pair-direct.uspto.gov>.

Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Ljiljana (Lil) V. Ciric/  
Primary Examiner, Art Unit 3744